SECTION THREE

HEALTH CARE

Initial statement – From the Institute of Medicine (IOM): "*Every health care decision maker, whether patient, clinician, employer, health plan manager, or policy maker, needs credible, unbiased, and understandable evidence of the effectiveness of health services. In today's world health care decisions are made by multiple people. For the decisions to result in effective health services for the individual or for populations; the health systems and interventions need to be science/evidence-based medicine* [20]. "

SECTION THREE includes (alphabetically)
Clinics
Dental/Oral Health
Emergency Medical Services
Hospitals
Long Term Care
Mental/Behavioral Health
Pharmacy
Veterans Health Administration

National Health Care Reports

Health care spending in the United States grew 4.0 percent in 2009, to $2.5 trillion, or $8,086 per person, the slowest rate of growth in the 50-year history of the National Health Expenditure Accounts (NHEA), due in great part to the economic recession. The report, prepared annually by the Centers for Medicare & Medicaid Services (CMS) Office of the Actuary, summarizes recent trends in health spending based on the most current data sources. Despite the slowdown, health care spending growth continued to outpace overall economic growth, which declined 1.7 percent in 2009 as measured by nominal Gross Domestic Product (GDP).

According to the *United Health Foundation 2010 America's Health Rankings®*; Iowa ranks 14th in the nation in health outcomes. The Report highlights include Iowa's strengths: a high rate of high school graduation with 86.5 percent of incoming ninth graders who graduate within four years, a low rate of uninsured population at 10.4 percent, a low infant mortality rate at 5.3 deaths per 1,000 live births and few poor mental and physical health days per month at 2.6 days and 2.7 days in the previous 30 days, respectively**.** Challenges included**:** a high prevalence of binge drinking at 19.4 percent of the population and limited availability of primary care

physicians with 84 primary care physicians per 100,000 population. ***Iowa ranks lower for determinants than for health outcomes, indicating that overall healthiness may decline over time*** [21]***.***

CLINICS

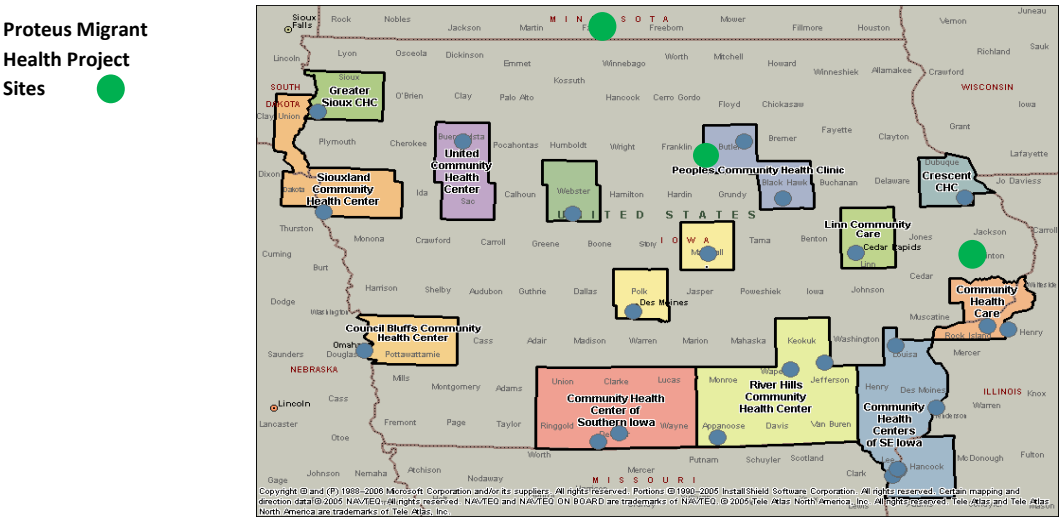
In Iowa, approximately 400 clinics are owned by hospitals, groups of physicians, individual providers, or corporations. They offer comprehensive primary care services to patients primarily with insurance (private or government) or those who self-pay. These clinics are not required to be located in a health professional shortage area or offer free services or reduced cost services. Many of these for-profit clinics are located in rural communities. They enhance overall health care access to rural areas and offer valuable community benefit programs. These clinics also refer patients to hospitals or specialty providers in other clinics as necessary.

*Four clinic programs **in Iowa** that offer primary care services to underserved clients are:*

- **Community Health Centers** (CHC) and **Rural Health Clinics** (RHC) are primary health care clinic programs that offer comprehensive health services, are government-funded or reimbursed and have specific federal and state operating guidelines.
- **Free Clinics** are primary care, do not offer comprehensive care, and traditionally do not receive federal or state funding; however, in Iowa some received limited state funds.
- **Proteus Clinics** are primary care, do not offer comprehensive care, are government-funded, and have specific federal and state operating guidelines related to migrant workers.

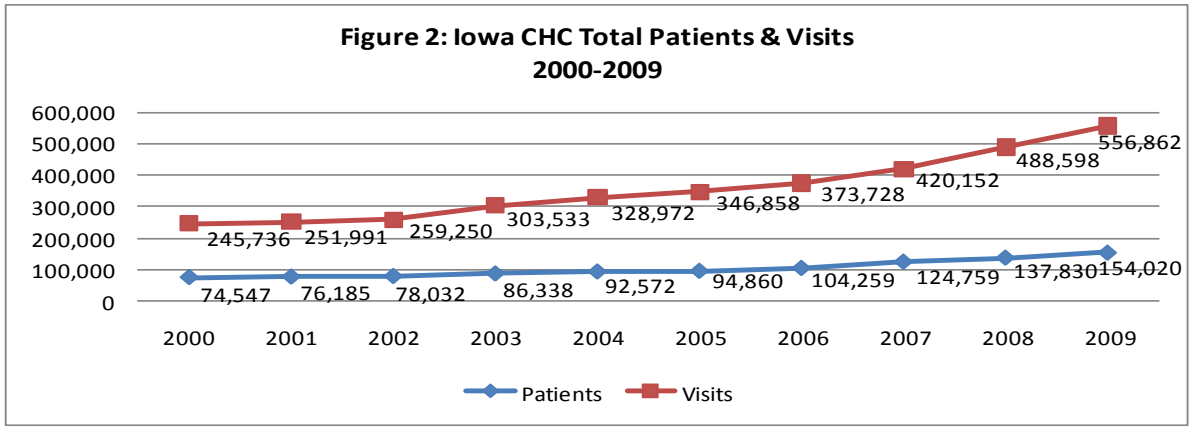
Community Health Centers

Figure 1: Iowa's Community Health Centers

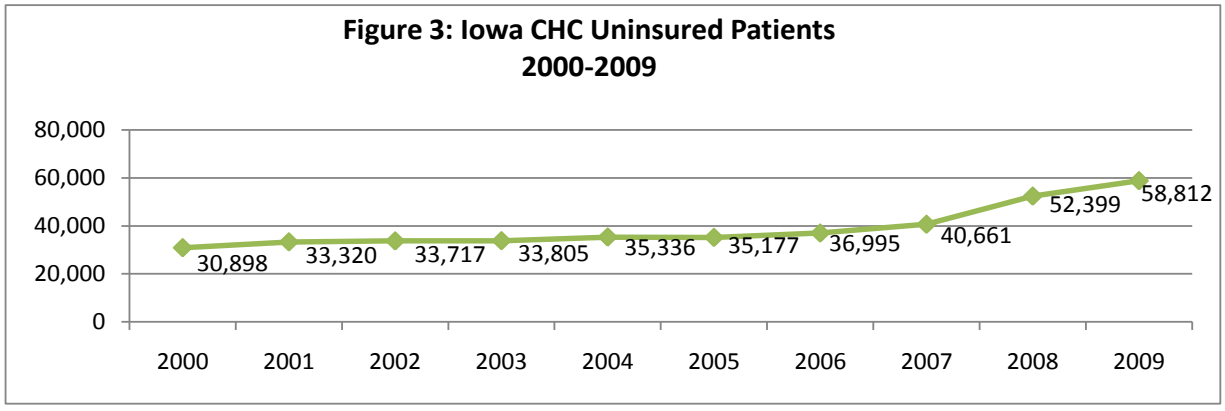


Nationally, community health centers (CHCs) across the country provided affordable, quality primary and preventive health care services to the uninsured and underserved. CHCs (also known as Federally Qualified Health Centers or FQHCs) are non-profit, community-governed providers, located in underserved areas that provide care to individuals who otherwise face financial, geographic, language, and cultural barriers to care. Today, 1,200 CHCs provide care to more than 20 million people in all 50 States and U.S. Territories. **In Iowa**, 13 CHCs and one FQHC Look-Alike provide medical, oral health and behavioral health services to 154,020 patients. (Figure 1)

Each year, health centers across the state provide services to an increasing number of patients. Over the last ten years, Iowa's health centers have more than doubled the number of patients served, and the number of annual patient visits has increased by 126 percent (Figure 2).



Similarly, the number of uninsured patients cared for by the state's health centers has also continued to increase. Between 2000 and 2009, it increased by 90 percent (Figure 3).

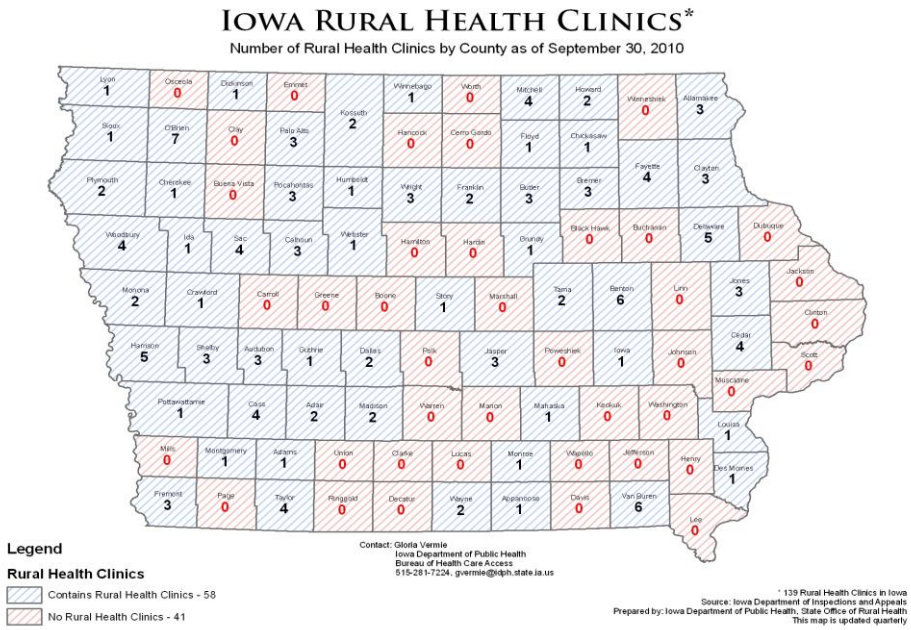


Resources available through the Affordable Care Act will provide an unprecedented opportunity to significantly increase access to affordable, quality health care for the underserved. The future projects expansion for Iowa's health centers over the next five years [22].

Rural Health Clinics

Rural Health Clinics (RHC) are part of a federal program implemented through the Rural Health Clinic Services Act (Public Law 95-210) which addresses the inadequate supply of physicians and mid-level providers serving Medicare beneficiaries and Medicaid recipients in rural areas. RHCs receive reasonable cost-based reimbursement from Centers for Medicare and Medicaid Services (CMS) for a defined set of core physician and certain nonphysician outpatient services. Federal criteria to qualify as an RHC require the practice to be located in a Heath Professional Shortage Area or Medically Underserved Area. Also, a mid-level provider must be working 50 percent of the time the clinic operates. RHCs are classified as provider-based (owned by a health organization) or independent/free-standing. RHCs can be for-profit, not-for profit or publicly owned and managed. There are an estimated 3,751 RHCs nationwide.

In Iowa, as of January 2011, there are 140 CMS certified Rural Health Clinics (RHC) in 58 counties. This number varies as clinics decertify, change ownership, or apply and receive certification. The clinics are truly rural community clinics in that they are located in small towns, the staff and providers usually reside in the communities, and the clinics bring economic benefits to their counties. In Iowa, approximately 78 percent of RHCs are provider-based owned by hospitals.



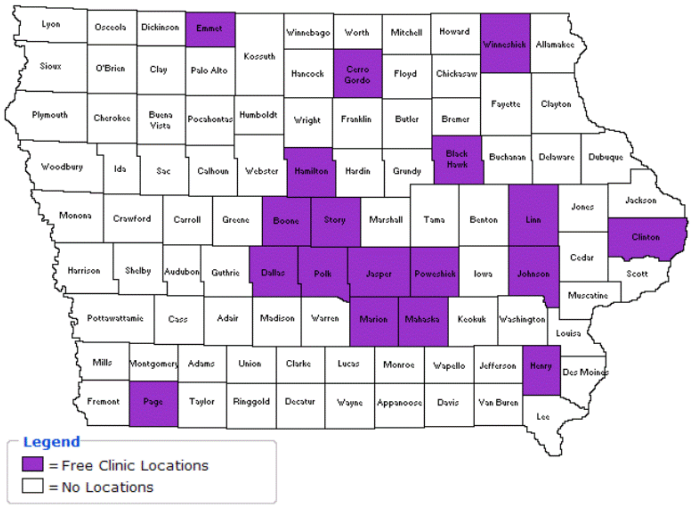
Iowa is one of thirteen states that utilize a Governor's shortage designation process to identify counties for eligibility to allow for certification of RHCs. The governor's designation process was first approved in 1998 by the HRSA Shortage Designation Branch. The governor's designation has been re-analyzed twice since 1998; the latest designation occurred in 2009 and will remain in effect for four years. **In Iowa,** this process allows counties which may not meet federal criteria to qualify as eligible and it helps maintain established RHCs.

Current challenges for RHCs include meeting federal guidelines to be eligible for implementing electronic health records systems and retaining physicians, physician assistants and nurse practitioners.

Free Clinics

The forty-one free clinics in Iowa do not offer comprehensive primary care. Thirteen of the free clinics are located in non-metro counties. However, rural residents also visit free clinics in metro counties. Free clinics offer basic health care services through volunteer physicians, nurses and other health care professionals. Some clinics also offer dental and vision services. They are supported by public contributions, sponsors, philanthropic foundations, and donors. In 2008, the National Association of Free Clinics estimated nationwide, that their 1,200 member clinics gave care for two million patients. The clinics expect 2009-10 will exceed by twice that number due to the economic downturn. The National Association of Free Clinics Iowa affiliate, Free Clinics of Iowa, is the largest network of free medical clinics with 24 member clinics. Some free clinics also operate with grant funds and offer sliding scale fees for those clients able to incur some costs. These clinics provide a tremendous health care service to patients and the communities, and in instances the care they give prevents patients from seeking care at local hospital emergency departments. Uncompensated patient care in emergency departments is a fiscal challenge for rural hospitals. **In Iowa,** the Iowa Department of Public Health (IDPH) coordinates the Volunteer Health Care Provider Program (VHCPP). Qualified volunteer health providers at qualified sites are provided liability coverage similar to the protection of an employee of the state as providers giving care as a volunteer.

Iowa Free Clinics - County Locations - 2010



Migrant Health Voucher Programs – Proteus

In Iowa, Proteus is a private, non-profit organization providing farmworker health services. The Migrant Health Project is a Section 330-funded, PA/Voucher program providing primarily outreach medical services to migrant and seasonal farmworker and their families throughout the state. Proteus does not offer comprehensive primary care; thus, additional cares that cannot be provided by Proteus staff are accomplished through vouchers with a prearranged network of contracted medical providers within Iowa including Community Health Centers. **In Iowa**, the main office is located in Des Moines with satellite offices in Iowa City and Fort Dodge. A full-time physician assistant (PA) is the year-around medical provider and serves as clinical director. Typically, one or two licensed PAs are hired part-time throughout the summer to assist in seeing patients and providing direct medical care. Supportive staff for each site includes a full-time bilingual, migrant health aide and two temporary health aides hired during the summer for the peak migrant season when migrant workers and their families assist farmers with field and livestock. Patients are usually seen at grower sites, at motels, in apartments and on occasion, at small town libraries [23].

Specialty Clinics

In addition to primary care clinics, Iowa also has clinics that offer specific services. Some consider them specialty clinics. These clinics usually include staff and providers with expertise, equipment and resources to best serve a unique clientele with a designated diagnosis or health need. In rural areas, specialty clinics are usually an enterprise of rural hospitals or urban hospitals. In general, patients are usually referred to specialty clinics by their primary care providers. Smaller rural hospitals are expanding specialty clinics in an attempt to create more access to care for rural residents and strengthen rural health infrastructure.

Iowa clinics that offer specialty care (4)

AgriSafe Clinics

The AgriSafe Network was founded in Iowa and now has locations in 18 states and two countries. It is composed of rural based health clinics that provide preventive occupational health services for the farming community. The ongoing program serves farmers and their families in the way of preventive health services, referrals, and personal protective equipment.

In Iowa, AgriSafe clinics, located in Ames, Ackley, Baxter, Carroll, Iowa City, LeMars, Madison, Mt. Pleasant, Oskaloosa, Peosta, Spencer and West Burlington, provide preventive occupational health services to farmers and their families who might not otherwise be able to afford these services. Farmers are at an increased risk of suffering from noise-induced hearing loss, chronic back problems, respiratory disease, stress, and farm-related injuries and fatalities. Occupational fatality rates in Iowa agriculture are about 20 percent higher than national rates, while work-related, disabling injury rates are more than double the national rate. Given the average age of the farmers receiving services is 49, the increasing elderly population in the farming community requires additional health care services specific to the needs of an aging society. Current challenges are clinics leaving the network as a result of the turnover in trained nurses at clinic locations, rapid growth of clinics without proper funding, and financial difficulties among the local clinics to provide services outside of grant funding. AgriSafe Clinic nurses are also trained in behavioral therapies and can assist and refer those needing mental health care [24].

Family Planning Council of Iowa

The Family Planning Council of Iowa (FPCI) is a nonprofit organization working to make sure safe family planning services are available to the women and men of Iowa. FPCI administers Title X Family Planning Programs to 55 counties. Clinic services include reproductive health care by providing funding for family planning exams, birth control methods, breast, cervical, and testicular cancer screening, and sexually transmitted disease testing and treatment. FPCI also delivers a number of education courses for health care providers and training sessions for clients.

FPCI disease prevention and healthy lifestyle programs offered include:

- The Iowa Infertility Prevention Program to reduce infertility
- The Iowa Human Papillomavirus (HPV) Vaccination Project to reduce cervical cancer

Planned Parenthood Clinics

Iowa has three affiliate corporate offices of Planned Parenthood (PP) Federation of America Incorporated. Office locations are:

- PP of East Central Iowa in Cedar Rapids,
- PP of Southeast Iowa in Burlington, and
- PP of the Heartland in Des Moines. The Heartland also has medical centers in Nebraska.

Via the three corporate offices, Planned Parenthood Health Centers serve clients and patients from all 99 Iowa counties. Along with reproductive health care services, the centers offer adoption placement, professional education and training, and research projects with University of Iowa and independent research. To reduce the number of deaths from breast and cervical cancer, some PP Health Centers, via federal grants, offer free mammograms and pap smears. Additionally, there is an Education and Resource Center in Des Moines, with resources located in public libraries. All Planned Parenthood Health Centers offer reduced cost services for those who cannot pay full costs.

Local Public Health Agency Clinics

Local Public Health Services clinics deliver medical state/federal programs. Client services include but are not limited to:

- Immunization clinics
- Health screening including blood pressure and blood glucose
- WIC clinics
- Cancer screening and detection services

Local public health agencies are rural community access points for a variety of wellness and health education programs. Public health professionals are experts in community health education activities and techniques. They work closely with numerous organizations and health facilities to implement strategies that can decrease the overall burden of disease and environmental factors. SECTION FOUR includes information specific to the important role local public health agencies and boards of health play in rural health

Iowa Legislation to Ensure Quality Medical Care (3)

The Iowa Health Care Safety Net Programs - If you watch a high-wire circus act closely, you will notice that the performers have a safety net below to catch them if they fall. **In Iowa**, there are specific programs including a health safety net initiative that are intended to catch Iowans in danger of falling through the cracks of the heath care system. The programs are important to rural residents. Since 2005, the Iowa Department of Public Health has administered funds from the legislature through contracts and partnership activities.

The Iowa Collaborative Safety Net Provider Network

The Network is coordinated by the Iowa/Nebraska Primary Care Association. Iowa's health care safety net providers have united to identify common unmet needs to address cooperatively. Access to pharmaceuticals, specialty care referrals, and health professional recruitment were identified as the first three areas for collaboration. Medical home was most recently added as a priority issue area. Originally the Network was comprised of Community Health Centers, Free Clinics, and Rural Health Clinics. The Network has grown in the past few years to include family planning agencies, local boards of health, and maternal/child health centers. The recession and increases in unemployment have amplified the challenges these clinics face to remain fiscally solvent. The network has a successful profile for delivery of quality care to Iowa's underserved. It will be an asset to Iowa especially as national health care reform funding is appropriated and pilot programs and initiatives are implemented. Several network locations are in rural communities.

The Iowa Patient-Centered Medical Home Program

The legislature enacted laws including the Health Care Reform Act as a blueprint for the patient-centered medical home (PCMH) plan. The Iowa Department of Public Health is the administrative agency. The PCMH system strives to: 1) reduce disparities in health care access, service delivery, and health status; 2) improve quality of health care and lower health care costs, thereby creating savings to allow more Iowans to have health care coverage within a sustainable health care system; and 3) provide a pragmatic method to document that each Iowan has access to health care. In over 35 states Medicaid and Children's Health Insurance (CHIP) programs have taken steps to promote the medical home model; state Title V Maternal Child Health Programs are key partners in many of these efforts. Additionally, the Patient Protection Affordable Care Act (PPACA) Section 2703 legislation designated "health home" as a factor for care of individuals with chronic conditions. Currently, **in Iowa**, community health centers and rural health clinics are furthest along in the transition to PCMH system, which allows rural residents access to this unique project.

The IowaCare Act

The IowaCare Act (HF 841) passed in the FY 05 legislative session and is administered by the Department of Human Services. It is best known for expanding limited Medicaid coverage to adults with incomes up to 200 percent of the federal poverty level. IowaCare is a limited health care program that covers adults ages 19-64 who would not normally be covered by Medicaid. All services must be received and ordered by a participating provider to be covered. On October 1, 2010, the IowaCare Medical Home pilot was launched. Approximately 25,000 members were assigned to a medical home where they will receive routine care, preventive services, and disease management at four designated clinics; Siouxland Community Health Center in Sioux City, Peoples Community Health Clinic in Waterloo, Broadlawns Medical Center in Des Moines, and the University of Iowa Hospitals and Clinics in Iowa City. Over the next few years, the program will expand across Iowa using existing community health centers to effectively assign every IowaCare member to a centrally located medical home. As IowaCare expands across Iowa rural residents will appreciate the increased access and rural health care providers will have a reliable referral process for clients who have limited or no insurance.

Summary

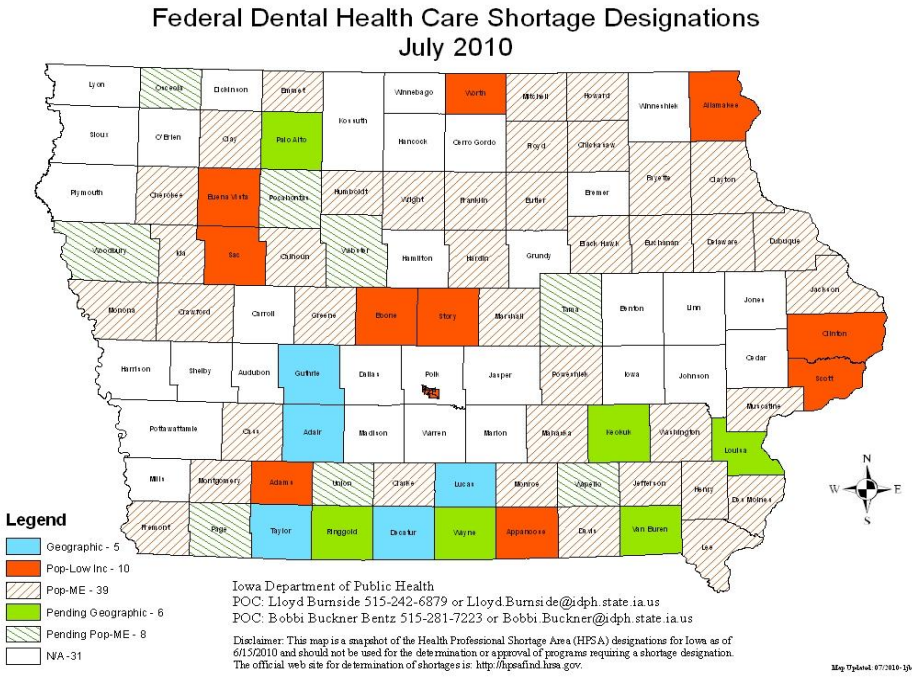
Medical clinics across the state provide a variety of services to rural Iowans. A combination of federal funds, state allocations, private profit driven, not-for-profit entities and volunteer charitable organizations all strive to deliver quality clinical services. For rural, underserved residents, access to comprehensive primary care clinic services is oftentimes a challenge. For clinics, fiscal/reimbursement issues and workforce issues are major challenges to the delivery of quality clinical services.

Comments

Secure funding and information-technology support for clinics are of vital importance to rural residents. The expansion of clinics utilizing a medical home model in rural areas will help Iowa comply with health care reform guidelines. Specialty clinics that deliver unique medical services and education to farmers are proven to reduce morbidity due to accidents. Efforts need to focus on primary care clinics partnering with local public health agencies so rural residents will have access to education and preventive health services which can improve health and decrease costs to the state.

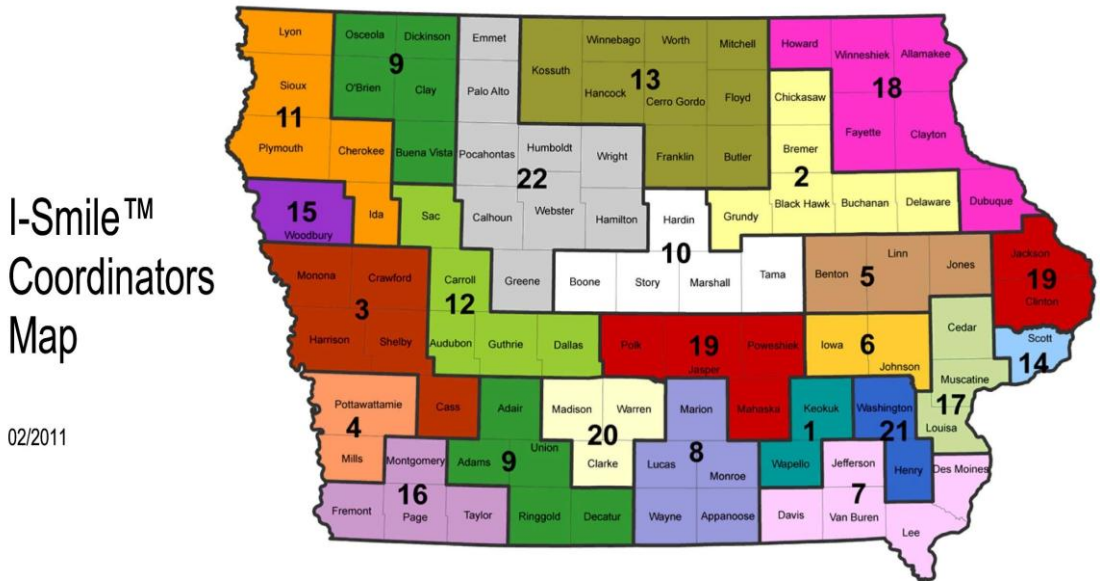
DENTAL/ORAL HEALTH

Initial Statement - Disparities in access to dental care are well documented. *"Populations that have low incomes, are behaviorally or physically disabled, or reside in rural areas obtain less care and have poorer oral health than more affluent, healthy and urban/suburban populations,"* explained Howard L. Bailit, D.M.D., Ph.D., co-director of the *Dental Pipeline* program. About 108 million people in the U.S. have no dental insurance. The U.S. has about 141,800 working dentists and 174,100 dental hygienists, but 4,230 Dental Health Professional Shortage Areas with 49 million people living in them. **In Iowa**, 54 counties are designated as dental health care shortage areas. Designation is pending for an additional 14 counties.



In Iowa, the Bureau of Oral and Health Delivery Systems (OHDS) within the Iowa Department of Public Health works with 22 Title V child health contractors around the state to ensure access to oral health services for children through the I-Smile™ program. I-Smile™ uses dental hygienists, serving as local coordinators, to oversee referrals to dentists, provide care coordination, and act as liaisons for families with community organizations and health care providers. The I-Smile™ dental home uses multiple health care providers in locations where at-risk families are found – such as in physician offices for well-child exams or at WIC clinics. As part of their I-Smile™ projects during federal fiscal year 2010, two additional child health agencies will begin planning for school based sealant programs. In addition, one of the state's community health centers secured funding and collaborated with the local I-Smile ™ coordinator to begin a sealant program during school year 2009-10. During 2010, the OHB evaluated the school-based sealant program, to determine if changes will be made prior to offering the program in 2011.

In the future, funding may be limited to Title V child health centers that have not previously had a school-based sealant contract. OHDS plans to provide technical assistance to currently funded projects and to transition them to maintain their programs without specific IDPH funds. The goal is a system that assures optimal oral health for children [25]. As the I-Smile™ dental home system grows, it is anticipated that the oral health status of low-income children will improve, through increasing opportunities to provide preventive care within public health settings, a demand by the public for dental care, and a larger number of dental providers willing to see low-income and very young children. Twenty-two of the I-Smile™ coordinators are positioned throughout Iowa to case manage and coordinate the oral/dental care of children enrolled in the program. Last year, over 67,000 Iowa children were impacted by I-Smile™ and other IDPH programs, including fluoride mouth rinse in schools and school-based dental sealants.



The IDPH also coordinates the Maternal Health Dental Program. Women enrolled in the Title V maternal health agencies in Iowa receive oral assessments, education, counseling, and dental referrals as an integral component of their comprehensive prenatal health services. Some agencies have dental hygienists that provide oral screenings and fluoride varnish applications, reimbursable by Medicaid for Medicaid-enrolled women. The hawk-i program provides health care coverage for uninsured children of working families, and on March 1, 2010, it also began offering dental only coverage for children who have health insurance but may not have dental coverage. So far, more than 2,600 children have enrolled.

During the last three years for two days each year, underserved residents **in Iowa** had the opportunity to get no-cost dental care through the Iowa Mission of Mercy (I-MOM) project. In 2008, 1,200 patients received $600,000 in free care, in 2009; 1,400 patients were seen at a cost of $800,000. Through the course of the 2010 event, 1,439 patients were provided $955,647 in free oral health services. In addition to Iowans, one or more people participated in the event from each of the following states: Kansas, Missouri, Illinois, Wisconsin, Minnesota, Indiana, Pennsylvania, District of Columbia, Michigan and Ohio.

November 2010, the U.S. Cellular Center in Cedar Rapids was transformed into a full functioning dental clinic with mobile dental equipment and a triage system that assisted patients with accessing care for their most acute needs. Dental hygienists, dental assistants, medical personnel and community volunteers worked hand-in-hand with dentists to treat immediate dental needs. During the two days, thousands got pain relief and their dental problems fixed.

Two Dental Study Reports

Health and Human Resources and Services (HRSA) contracted with NORC Walsh Center for Rural Health Analysis to complete research and report on "*Use of Emergency Departments (ED) for Conditions Related To Poor Oral Health Care".* The 52-page final report was released in August 2010. There were inherent limitations with the data studied for each state. Despite the limitations, the study provided important evidence regarding access to dental care among low-income populations. Seven states were studied including **Iowa**. See Table A.

Table A: Iowa Study of Emergency Department (ED) Visits for Oral Health Conditions

	All ED visits	ED visits for an oral health complaint
Iowa	**868,454**	**11,351**
Total number of oral health diagnoses as a percentage of ED visits	1.3%	NA
Percent of preventable ED oral health diagnosis	NA	42.8
Percent with diagnosis of low severity	NA	52.3
Location:		
Urban area	51.1	53.9
Rural area	48.9	*46.1
Payer:		
Medicare	19.9	8.1
Medicaid	20.3	**27.2
Private insurance	42.2	28.9
Self-pay	17.5	35.9

Source: Use of Emergency Departments for Conditions Related to Poor Oral Health Care: Final Report 2010
***43% of Iowans live in non-metropolitan areas. ** Medicaid beneficiaries ED visits are overrepresented by 90%.**

The study also focused on two findings: 1) expanding access for Medicaid patients, and 2) expanding scope of practice allowing allied dental health providers to be reimbursed for Medicaid services. The report concluded, *not all Americans are achieving the same level of oral health or accessing the same high quality oral health care particularly those in rural areas, may face in seeking care in dentist's offices or dental clinics*.

In a second recent report: *The Impact of Unaddressed Dental Disease: Emergency Department Report* [26] also included Iowa data and revealed some similar results:

- In the Midwest, the median expense per person in 2005 was $1,338 for dental office care. The median ED cost per visit in Iowa was $4,626.
- In 2007, over 10,000 visits to EDs for dental related problems cost $5 million to public programs.
- In 2007, over 7,886 hospitalizations were attributed to dental abscesses with a total cost of $105.8 million.
- Urgent care dental visits in hospitals are more pronounced among the uninsured.

In Iowa, it is estimated that 94 percent of all dentists work within private practices. Of those not in university –based settings or the Department of Corrections, the remaining non-private dentists likely work within one of Iowa's community health centers. There has been little effort

to add dental services to other aspects of Iowa's Safety Net delivery system to date, leaving many unmet opportunities for building critical dental infrastructure for rural areas. This gap for underserved Iowans may require innovative means to address the problem including: 1) the addition of new dental workforce models (extenders), 2) an improved reimbursement system that is attractive to dentists working within public health and other Safety Net settings and/or, 3) an expanded, private dental practices that provide regular access for rural Iowans.

Summary

Studies revealed challenges to regular dental care such as lack of insurance, few dental providers actually treating Medicaid patients, lack of transportation, social and cultural habits, lack of dental health literacy, and an overall lack of providers. In addition, insufficient public prevention and education efforts were implicated as barriers to quality dental health.

Comments

In Iowa, continued growth and strengthening of dental professional education and clinical programs that will expand dental services to the general population and underserved, uninsured and underinsured Iowans will increase the overall health of Iowa residents, and will decrease hospital and clinic costs related to dental problems. Expansion of the I-Smile™ program to include maternal health programs and nursing homes would reach more at-risk populations.

EMERGENCY MEDICAL SERVICES

Initial Statement - Prehospital emergency care is an important component of a comprehensive health care system. In rural areas where there are fewer health care providers and the distance to acute and emergency care may be greater, prehospital emergency medical service (EMS) personnel provide essential health care services to rural residents, individuals in vehicles traveling the highways and byways through rural areas, and to those visiting rural areas.

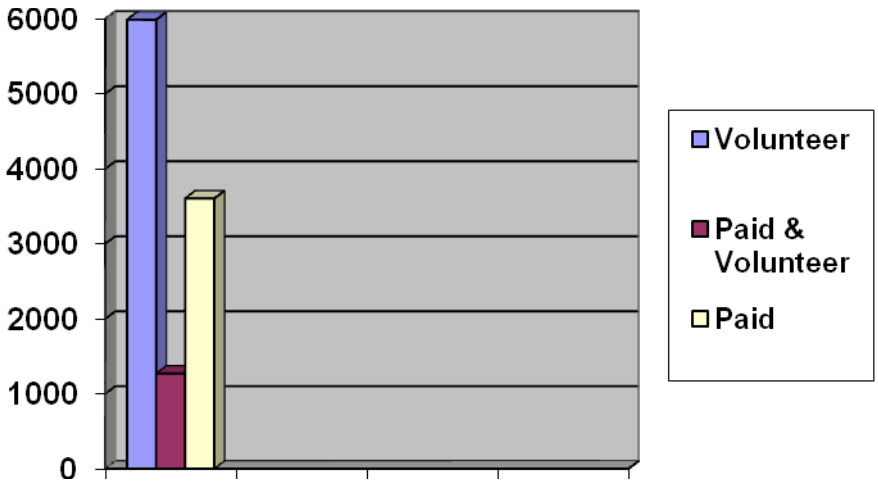
EMS is provided as a public safety function supported by the National Highway Transportation Safety Administration (NHTSA) as well as state and local governments. EMS is not supported through Health Resources and Services Administration (HRSA), the main federal coordinating and funding agency for medical and health care programs. Nationally**,** EMS has evolved and continues to transition the mode of operations, technology levels, and the areas of clinical training and education.

Iowa law requires counties to support law enforcement and fire services. However, emergency medical services are not currently mandated for county support. Today, due to a shortage of qualified workforce, costs related to training volunteers, expense of equipment and low to non-existent reimbursements, EMS agencies in some rural counties are struggling to operate. Nearly 30 percent of Iowa's ambulance services use a formal agreement with a neighboring service to supplement staffing, an increase from 12 percent in 2005.

The Iowa Department of Public Health (IDPH) houses the Iowa Bureau of Emergency Medical Services (EMS). Designated by legislative code, the department is the lead agency responsible for the development, implementation, coordination and evaluation of Iowa's EMS system. The bureau is a regulatory agency; it provides technical assistance regarding EMS provider certification and renewal, service program authorization, trauma care facility certification and renewal, statewide programs for injury prevention, and emergency medical services for children. Additionally, the Iowa EMS Advisory Council is administered by the IDPH-EMS. The council membership is multidisciplinary and provides direction to the department and offers recommendations for matters affecting EMS policy.

In Iowa, urban EMS transport is provided by hospital-based, private, or fire department-based ambulance services that include paid certified staff. In rural or small cities, EMS departments typically include volunteer staff or limited paid positions with a volunteer base. Iowa continues to have a majority of volunteer EMS providers serving rural communities. While there is nothing more valuable than a dedicated community volunteer, the time obligations and costs to the volunteer unit for training, equipment, and upkeep can become a community crisis.

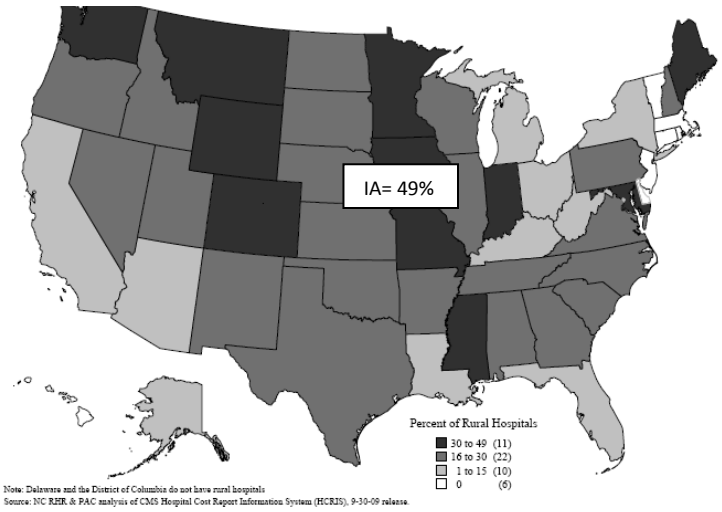
Number of IA EMS Providers on Service Roster
By Personnel Type - 2009



Rural Hospital Support for EMS - In some rural counties, EMS agencies are affiliated with rural hospitals. While this is one solution to a number of barriers for effective quality EMS, it is not always beneficial to the rural hospital. A recent report by the North Carolina Health Research & Policy Analysis Center studied how and why rural hospital support EMS. The report, *Rural Hospital Support for Emergency Medical Services* was funded by HRSA/Office of Rural Health Policy (ORHP) to better understand the implication and affects patient transportation has on small rural hospitals and their communities. All short-term stay, acute rural hospitals in the nation were evaluated. Over 90 percent of rural hospitals reported investing dollar amounts to support EMS units or they operate their own EMS unit. Rural hospitals supporting EMS were likely to be Critical Access Hospitals (CAH). Those CAHs that support EMS had a median cost of just over $235,000 per year [27]. Not all costs are covered by reimbursements.

Iowa rural hospitals have the highest level of support for EMS in the nation. Forty nine percent of rural hospitals are involved (see map) in support of their local EMS. The primary reasons rural hospital support EMS units are because EMS units were failing and/or local government entities requested that they do so. The barriers and challenges for the rural hospitals supporting EMS include work force issues and reimbursement. The federal regulation 35-mile rule prohibits Medicare cost-based reimbursement to hospitals for EMS charges if there is another EMS agency within 35 miles.

Percent of Rural Hospitals in each State that Support EMS Ambulance Service



Major Iowa EMS Projects (2)

Air Medical Transport Rules - the Emergency Medical Services Advisory Council, Air Medical Transport subcommittee worked with IDPH to promulgate administrative rules to regulate the air medical industry in Iowa. Enacted in 2010, the rules will ensure safety measures for equipment, staff and communications.

Iowa EMS Systems Standards Project - Calhoun, Des Moines, Jones, and Woodbury counties have completed the 24-month grant period to pilot test the EMS System Standards to collect data for the development of an EMS system delivery model based on the draft minimum standards. The data collected will be used to identify the lack of a governance structure and funding as challenges and resource needs. Final modification to the EMS System Standards will serve as a foundation for a statewide system. Preliminary progress reports include improved relationships between services and local governments, sharing training and administrative and medical direction resources. This project has the potential to serve as the foundation for the development of a sustainable and efficient EMS system in Iowa [28].

The Iowa Trauma System - The overall goal of the Iowa Trauma System is to enhance community health through an organized system of injury prevention, acute care and rehabilitation that is fully integrated with the public health system in a community. A trauma system should possess: 1) the distinct ability to identify risk factors and related interventions, 2) to prevent injuries in a community and, 3) maximize the integrated delivery of optimal resources for patients who ultimately need acute trauma care. Resources that are required for

each component of a trauma system are clearly identified, deployed, and evaluated to ensure that all injured patients gain access to the appropriate level of care in a timely, coordinated, and cost-effective manner. **In Iowa,** the trauma programs allow air and ground services to coordinate rapid transport for rural and farm accident injury victims from field to medical center.

All of Iowa's hospitals are currently verified and participate in Iowa's trauma care system. Therefore, the continuation of the on-site re-verification process is crucial to maintain the current structure and achieve the overall goal. Data submitted via the trauma registry can be of importance in determining populations at risk, accident prevention strategies, and methods to increase effective medical care for trauma victims. One benefit of Iowa's trauma system is to provide a minimum level of care to all Iowans no matter what area of the state they are injured.

Summary

Nationally and within Iowa, EMS is engaged in efforts to improve the educational standards of providers. There are several projects and initiatives to increase the quality value of EMS operations. The challenges to sustaining an effective EMS agency especially in rural areas are thought-provoking. **In Iowa**, small rural hospitals are recognized for their collaborative efforts to keep EMS capacity in the community.

Comments

Emergency Medical Services are vitally important to medical services in rural Iowa. Two circumstances for the daily need of effective EMS systems are: 1) Iowa is an agricultural state with a significant number of farm-related accidents, and 2) there are hundreds of thousands of commuters and travelers driving on two major interstate systems intersecting in central Iowa. In addition to the tremendous community efforts, counties need to ensure EMS services. Effective EMS, regulations and funding for staff training, data collection and continuation of successful programs are strategies to ensure EMS will continue to evolve and save lives in Iowa.

HOSPITALS

Initial Statement – Rural hospitals provide essential healthcare services to nearly 54 million people in the United States, including nine million Medicare beneficiaries. These hospitals typically serve as the healthcare hub of the community, offering residents access to a continuum of healthcare services and providers in one location. They also are frequently one of the largest, if not the largest, employers in the community – meaning, the financial stability of a small rural hospital has a tremendous influence on its community's economic status.

Critical Access Hospitals

The Medicare Rural Hospital Flexibility (FLEX) Program, created by Congress within the Balanced Budget Act of 1997, allows small hospitals to be licensed as Critical Access Hospitals (CAH) [29] and offers grants to states to help implement initiatives to strengthen the rural health care infrastructure. CAH classification was designed to prevent rural hospital closures while, at the same time, improving access to health care in rural communities. CAH designation allows the hospital to receive Medicare reimbursement on a cost-basis at 101percent of reasonable costs for inpatient and outpatient services (including lab and qualifying ambulance services).

Nationwide, there are 1320 CAH. The State of Iowa has the second largest number of CAHs with 82, just behind the State of Kansas with 83. To be classified as a CAH, a rural hospital must meet the following requirements:

- The hospital must be located more than 35 miles from another hospital;
- The number of inpatient acute care beds cannot exceed 25; (Up to ten rehabilitation and ten psychiatric beds are excluded from this calculation.)
- The average length of stay for acute care patients must be less than 96 hours;
- 24-hour emergency care services must be provided; and
- The hospital must develop agreements with other hospitals related to credentialing and patient referral & transfer.

Prior to 2006, hospitals could avoid the 35 mile requirement if the hospital was deemed a necessary provider. Federal law permitted the states to establish their own criteria for the necessary provider requirement. In Iowa, this criterion required the hospital to have certain population, geographic and facility characteristics. The hospital was also required to demonstrate its importance to the community's health status and its involvement within the community. The Iowa Department of Public Health FLEX program evaluated the applications for hospitals seeking such classification. On January 1, 2006, the "necessary provider" federal status was ended.

A CAH may be granted swing-bed approval to provide post-hospital skilled nursing facility-level care in its inpatient beds. In the case of hospice care, a hospice may contract with a CAH to provide the Medicare hospice hospital benefit. Reimbursement from Medicare is made to the hospice. The CAH may dedicate beds to the hospice, but the beds must be counted toward the 25-bed maximum. However, the hospice patient is not included in the calculation of the 96-hour annual average length of stay. The hospice patient can be admitted to the CAH for any care involved in their treatment plan or for respite care. The CAH negotiates reimbursement through an agreement with the hospice [30].

Nationally, most hospitals, including small rural hospitals depend largely on Medicare reimbursements to compensate them for services they offer; however, those with attached nursing homes can be equally dependent on Medicaid. Routinely, these hospitals face enormous fiscal challenges as reimbursement rates for these services decline – especially rural hospitals, which suffer from lower Medicare margins due to their smaller size; more modest assets and financial reserves; and higher percentage of Medicare patients since rural populations are typically older than average urban populations. As reimbursement rates for services decrease, many rural hospitals find themselves eliminating critical health care services just to remain financially solvent; in some instances, they are even forced to close their doors.

Iowa Hospitals

In Iowa, there are currently 121 hospitals, including three Veterans Administration (VA) hospitals. Of the 118 hospitals that are not VA hospitals, all are certified by Medicare and licensed by the State of Iowa. Such certification and licensure ensures the hospitals meet the minimum requirements for organization and operation.

Ninety of Iowa's 99 counties have at least one community hospital, leaving no Iowan more than 25 miles from a hospital. Twenty-two community hospitals are classified as urban hospitals because they are located in areas with a population of greater than 50,000 (also referred to as a Metropolitan Statistical Area or MSA)[31]. The large majority of Iowa's community hospitals, ninety-two in all, are classified by Medicare as rural hospitals because they are located in areas with a population of less than 50,000. Of the 92 rural hospitals, 82 hospitals are also classified as critical access hospitals. Additionally, six rural hospitals are classified as rural referral centers because they are rural hospitals that have operating characteristics similar to urban hospitals.

The Iowa CAHs participate in the FLEX Program referenced above. Over the last 12 years, the Iowa FLEX program has offered funding, technical support, and educational opportunities to CAH and network hospitals, their staff, and rural EMS. The Iowa FLEX program staff also serves as liaisons to national associations and organizations to promote grant and quality care participation opportunities for the CAHs.

Rural Referral Centers

Rural referral centers (RRCs) are relatively large rural hospitals that have operating characteristics similar to urban hospitals. A rural hospital can qualify as a RRC if it has at least 275 beds and meets the following criteria:

- At least 50 percent of its Medicare patients are referred from other hospitals or from physicians not on the hospital's staff;
- At least 60 percent of its Medicare patients reside more than 25 miles from the hospital; and
- At least 60 percent of all services the hospital provides to Medicare patients are provided to patients who live more than 25 miles from the hospital [32].

A hospital may also qualify as an RRC by meeting certain case-mix, discharge, and referral or service area standards.

Iowa Hospital Finance

Public or private insurance pays the majority of care provided by Iowa's hospitals. Medicare is the largest revenue source for hospitals, accounting for 42.8percent in 2009 [33]. Also in 2009, Wellmark provided 21percent, other private insurers provided 21.30 percent, and Medicaid provided 10.9 percent of total revenue to Iowa's hospitals. The self-pay patient accounted for the remaining 4 percent of hospital revenue [34].

Medicare payments to hospitals in Iowa are among the lowest in the nation. In 2007, Medicare reimbursements per Iowa enrollee were the 44th lowest in the nation at $6,686. According to a Rural Health Research & Policy Center, Finding Brief; "Iowa's reimbursements were 29.8 percent or $1,996 lower than the national average of $8,682." Even though Iowa's Medicare payments are low, the percentage of the population receiving Medicare is among the highest in the nation. "Iowa tied for 8th highest in the nation in Medicare enrollees as a percent of the total population**." In Iowa**, Medicare beneficiaries account for 17 percent of the state's population [35].

Medicaid reimbursement policies are also an important factor in hospital finance. This issue is especially important to CAHs because "[s]tate Medicaid agencies are not…required to reimburse CAHs on a cost basis and have flexibility in determining how CAHs are paid for providing services to Medicaid enrollees [36]." Only 28 of the 45 states with CAHs provide cost-based Medicaid reimbursement. The State of Iowa is among those states that do provide cost-based reimbursement. In fact, Iowa's Medicaid reimbursement is 101% of reasonable costs for inpatient and outpatient services.

Regardless of Iowa's increased level of cost-based Medicaid reimbursement, in 2004, the state-funded health care expenditures accounted for 13.7 percent of the gross state product and ranked 27th highest nationally [37].

Medicare as well as Medicaid payments inequities place an increasing burden on Iowa hospitals and health systems. Other areas of financial concern for Iowa's hospitals include provider-wage inflation and the costs associated with achieving compliance with the initiatives in the health care reform legislation [38].

Regardless of the financial issues faced by Iowa's hospitals, the quality of care provided to patients has not suffered. In fact, in a report of Iowa's Critical Access Hospital, Iowa's CAHs ranked higher in *every* area of patient quality than hospitals nationally. A study conducted by the FLEX Monitoring Team that analyzed the survey results of a CMS survey entitled, Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), found the following [39]:

2008 HCAHPS Results for CAHs in Iowa and Nationally and all US Hospitals	**Mean (average) for:**		
Percent of patients who reported that:	**Iowa CAHs (n =31)**	**CAHs Nationally (n = 442)**	**All US hospitals (n = 3,765)**
Nurses always communicated well	80%	79%	74%
Doctors always communicated well	83%	83%	80%
Patient always received help as soon as wanted	69%	71%	62%
Pain was always well controlled	71%	71%	68%
Staff always explained about medications before giving them to patient	62%	63%	59%
Yes, staff gave patient information about what to do during recovery at home	82%	82%	80%
Area around patient room was always quiet at night	62%	61%	56%
Patient room and bathroom were always clean	82%	78%	69%
Patients gave an overall hospital rating of 9 or 10 (high) on 1-10 scale	73%	70%	64%
Patients would definitely recommend the hospital to friends and family	73%	71%	68%

Iowa Promising Practice

National Recognition for Rural Iowa Hospital

Monroe County Hospital & Clinics (MCHC), a critical access hospital in Albia is a prime example of an Iowa hospital that excels in providing quality care to its patients. MCHC is a six-time recipient of Press Ganey's Summit Award. The Summit Award is given to facilities that receive a patient satisfaction ranking in the 95th percentile or above for three consecutive years. Categories for the Summit Award include: ambulatory surgery, emergency department, inpatient, inpatient behavioral health, medical practice, and outpatient. In the past six years, MCHC has been awarded one Summit Award in the area of ambulatory surgery, two for its emergency department services, and three for its outpatient services.

Summary

In addition to the medical and health services, community hospitals help stabilize the population base, invigorate their communities and contribute significantly to the quality of life. Iowa has a vigorous, rural hospital system that includes critical assess hospitals and the six larger rural reference centers. Daily, these rural hospitals are challenged to overcome issues related to disparate reimbursement, maintaining operations and moving fast forward with changes related to health reform.

Comment

There is an imperative to ensure access to hospital care and services for residents in Iowa's many rural areas. Federal, and state policy makers and agencies must support programs and funding that enable rural hospitals to reduce and eliminate the numerous challenges they face, so they can remain a vital components of their communities' health.

Long Term Care

Initial Statement

Long-term care as we knew it a generation ago is changing – medical advances are allowing people to live longer and Americans are demanding more options and services closer to home. Rural areas face particular challenges meeting Americans' needs for quality, accessible long-term care; rural Iowa is no exception. With a growing elderly population and declining rural populations, long-term care presents significant issues and priorities for rural Iowa.

The Continuum of Long-Term Care

Long-term care services can be most simply defined as "services and supports that meet health or personal needs over an extended period of time" [40]. Long-term care is a phrase that is more commonly used when referring to services for the aging; the disability community often refers to these services as community supports or supports for independent living [41]. For the purposes of this section, long-term care will be used to refer to the entire continuum of health, rehabilitative and residential services available to individuals with chronic illness or disabilities [42].

Long-term care is different than medical care in that it meets ongoing needs to improve functioning or assist someone with limited functioning [43]. Long-term care can be delivered in a variety of different ways, such as a stay in a nursing home; a spouse providing personal cares (such as bathing or dressing) at home; a home health aide assisting with cleaning and cooking; daily assistance in a group residential setting; or support meeting employment goals in the community. One example of the continuum of long-term care services and supports is outlined below. It includes home, community and facility settings [44].

FACILITY SETTINGS	**HOME AND COMMUNITY BASED SETTINGS**		
	Community Residential	**Supports to Individuals and Families**	**Community Supports (non-residential)**
Nursing Facilities	Group Homes	Personal Assistance and Support	Day Services and Programs
Intermediate Care Facilities/MR	Residential Care Facilities	Personal Care	Respite
State Resource Centers	Hospice	Home Health	Supported Employment
Hospitals	Assisted Living	Supported Community Living	
	Semi-independent Living		

(Adapted from *Continuum of Direct Care Service Delivery, Draft Version*, Direct Care Workforce Initiative, Iowa Department of Public Health, April 2011)

Who Receives Long-Term Care?

Approximately 9.5 million people in the US need help with either activities of daily living (ADLs) or instrumental activities of daily living (IADLs), and therefore meet the definition for needing long-term care services and supports [45]. The majority of individuals are 65 years of age or older (63 percent). Most of the individuals receiving long-term care live in the community [46].

Definitions:
Activities of Daily Living (ADLs) are basic tasks of everyday life and include bathing, eating, dressing, using the toilet, and transferring from one place to another.
Instrumental Activities of Daily Living (IADLs) include meal preparation, managing money, managing medications, using the telephone, doing light housework, and shopping for groceries [47].

Nationally Critical Access Hospitals (CAHs) and other rural hospital provide more umbrella long-term care services than urban hospitals. However, between 2000 and 2008 the number of CAHs providing services has declined as the LTC reimbursement policies change.

LTC Services	CAH	Other Rural	Urban
Swing beds	89.9%	39.2%	6.3%
SNF	42.4%	29.6%	20.1%
Intermediate Care	17.1%	8.5%	6.2%
Separate NH-type LTC unit	25.4%	20.1%	11.1%
Acute LTC	3.6%	4.7%	10.7%
Other LTC	10.5%	6.4%	4.6%
Adult day care	8.3%	3.7%	5.9%
Assisted living	9.5%	4.1%	2.6%
Hospice	21.3%	26.6%	23.0%
Home health	35.3%	45.4%	25.1%
Meals on Wheels	14.8%	9.7%	8.6%
Retirement housing	7.8%	2.7%	1.9%

Source: 2008 American Hospital Association Annual Survey & FLEX Monitoring Team Policy Brief #19
† To receive approval to operate swing beds, a hospital must be designated as rural (i.e., located in an area delineated as an urbanized area by the U.S. Census Bureau)and have fewer than 100 beds, excluding beds for newborns and beds in intensive care type inpatient units. Over time, population changes have resulted in changes to the rural status of the area in which some of these hospitals are located.

Long-Term Care in Iowa

Since long-term care is so broadly defined and encompasses a significant diversity of services and supports (including informal or family care in the home), estimates cannot be made about the number of individuals receiving long-term care in Iowa. However, existing data provide information about the numbers of Iowans that may be impacted by long-term care needs and the capacity of long-term care services in Iowa.

In 2008, the population of Iowans, 65 years old and over, was 14.8 percent, and that percentage is projected to be 22.4 percent by 2030 [48]. Iowa has a disability prevalence rate of 11.8 percent for all ages, and the total number of Iowans with disabilities who received Social Security benefits between the ages of 18 and 64 totaled 73,251 in 2008 [49].

The following tables (4) provide a snapshot of individuals served, services available, and capacity of current infrastructure to provide long-term care in Iowa. The charts are not intended to provide definitive numbers or information, but a summary of some of the services available.

Medicaid Home and Community Based Waivers

Home and Community Based Waivers are Medicaid programs that have rules set aside or waived to provide flexibility in how and where services are delivered. Iowa has seven Medicaid Waiver Programs [50].

Table 1.

Medicaid Home and Community Based Waivers	Numbers Served (2009)
AIDS/HIV (Adults and children)	56
Brain Injury (Adults)	1,056
Children with Serious Emotional Disturbance	614
Older Adults	9,779
Intellectual Disability (Adults and children)	10,662
Physical Disability (Adults and children)	842
Mental Illness	3,339
Total Persons Served on HCBS Waivers	**26,348**

Medicaid Long-Term Care Services

The following chart provides information about the number of Iowans that received specific services (those most likely to require ongoing direct long-term care services) through Medicaid between July 2008 and June 2009 [51].

Table 2.

Medicaid Service	Numbers Served
Home Health	38,979
Intermediate Care Facility	18,352
Intermediate Care Facility – MR	2,255
Residential Care Facility	2,488
Habilitation Services	3,725
Remedial Services	18,527
Adult Day Care	1
Assisted Living	NA*
Total Persons Served through DCW-Provided Medicaid Services	**84,327****

Long-Term Care Facilities

The following chart provides a summary of the total number of long-term care facilities in Iowa as of April 2010 [52].

Table 3.

Type of Facility	Total Entities in Iowa	Maximum Occupancy
Free-standing nursing and skilled nursing facility	397	28,775
Free-standing nursing facility	10	1,244
Free-standing skilled nursing facility	3	142
Intermediate Care Facility – MR	141	3,127
Intermediate Care Facility – PMI	1	25
Residential Care Facility	97	3,555
Residential Care Facility – MR	52	678
Residential Care Facility – PMI	13	284
3-5 Bed Residential Care Facility – MR/MI/DD	27	134

Hospital	42	9,439
Critical Access Hospital	82	2,498
Psychiatric Medical Institute for Children (PMIC)	33	532
Chronic Confusion and Dementing Illness (CCDI) Unit	117	2,316
Totals for Long-Term Care in Iowa	**1,015**	**52,749**

Home and Community Based Facilities and Programs

This chart provides a summary of facilities that are certified by the Iowa Department of Inspections and Appeals as Home and Community-Based Facilities or Programs as of May 2010 [53].

Table 4.

Certified Home and Community Based Facility or Program	Total Entities Certified in Iowa	Total Capacity
Home Health Agencies (HHAs)	176	0
Rehabilitation Agencies (Rehab)	37	0
Elder Group Homes	7	33
Assisted Living Programs	231	12,311
Assisted Living Programs for Persons with Dementia	67	5,298
Adult Day Services	31	927
Totals for Certified Home and Community Based Facilities and Programs in Iowa	**549**	**18,569**

Providers of Direct Care Services

Direct care professionals provide the vast majority of formal paid long-term care – representing 70 to 80 percent of the hands-on long-term care and personal assistance delivered to individuals with disabilities and chronic conditions and the elderly in the US [54]. Defined as individuals who provide supportive services and care to people experiencing illnesses or disabilities, the direct care workforce is now estimated to be the single largest workforce in the state (approximately 50,000 workers in 2011) [55]. The majority of direct care professionals are in home and community-based settings. By 2018, home and community-based workers are expected to outnumber facility workers by nearly two to one [56]. According to recent estimates from Iowa Workforce Development, nurse aides and home health aides (two types of direct

care professionals) are in the top 10 for job growth in Iowa, and we need an additional 11,000 direct care professionals by 2018 to meet the demand [57].

It is important to note that informal care, provided by unpaid family members and friends, actually makes up the majority of all long-term care services provided in the US. According to the National Family Caregivers Association, "…More than 65 million people, 29 percent of the U.S. population, provide care for a chronically ill, disabled or aged family member or friend during any given year and spend an average of 20 hours per week providing care for their loved one" [58]. Fourteen percent of family caregivers are caring for a special needs child, with 55 percent of these caregivers caring for their own children [59]. For the elderly living in the community, only six percent of those with long-term care needs receive only formal paid care; 47 percent receive only informal care from family and friends; and 19 percent receive both formal and informal care [60]. The National Family Caregivers Association reports that family and friend care giving services for older adults equal an estimated $375 billion a year, twice the amount spent on home care and nursing home services [61].

Current Challenges and Trends in Rural Long-Term Care

In a national survey of state and local rural health leaders and stakeholders, access to quality health services was identified as the top rural health priority [62]. In a separate survey of rural providers conducted by the American Health Care Association and the National Center for Assisted Living, the most-often cited challenges to facilities with long-term care included finding and keeping qualified staff, declining census, reimbursement too low to cover costs, transportation, and limited access to services [63]. Rural providers also work with an older and sicker population; rural elderly are older than urban elderly and more likely report poor health [64].

There are three major trends occurring in Iowa, and nationally, that impact long-term care service quality and delivery in rural areas – an aging population; a declining overall population; and increased demand for services in home and community-based settings. The population of Iowans over age 65 is projected to increase 50 percent in the next two decades, compounding rural challenges since 75 percent of individuals over age 65 suffer from at least one chronic illness [65]. It is well known that baby boomers will place stress on already-fragile health and long-term care systems throughout the country. And their desire to avoid institutional settings and 'age in place' will greatly influence the service and delivery options made available in the near future.

According to the U.S. Census Bureau, Iowa's population grew only 2.8 percent between 2000 and 2009 while the United States' population grew 9.1 percent for the same time period [66].

Iowa is a mostly rural state with the population becoming increasingly urbanized, and residents, particularly younger Iowans, migrating to the most populated counties in the state. Between 2000 and 2007, 76 of Iowa's 99 counties lost population, and five of those counties (all of them rural) lost 10 percent or more of their population [67]. In addition, residence impacts accessibility to health care professionals in Iowa. Currently, 55 of 99 counties in Iowa are fully or partially designated as primary care Health Professional Shortage Areas (HPSAs), meaning there are not enough health care professionals to meet the needs in those communities.

There is already evidence that Iowans are increasingly utilizing services in home and community- based settings. The number of Iowa Medicaid members receiving waiver services increased 35.8 percent between 2005 and 2010 [68]. Although the data and projects in Iowa like Money Follows the Person (Centers for Medicare and Medicaid Services grant) emphasize rebalancing the long-term care system and providing more choice in how and where people receive services, the options do not always exist in rural areas. Research has shown that individuals are more likely to use home and community-based service waivers (through Medicaid) if they are white, urban, and have better access to transportation [69]. However, promising practices such as telemedicine and increased use of technology by home health care agencies (such as the ability to read and review vitals off-site) are providing more opportunities to deliver the high-quality care and services desired by rural Iowans [70].

Summary

Long-term care is an increasingly vital service in Iowa, particularly in rural communities. As the state plans for the aging of the baby boomers, it is important to continue finding solutions. Also, for rural challenges to long-term care, solutions with issues such as transportation, lack of available and qualified staff, and qualified training for direct care workers working in facilities and private homes. To maintain comprehensive, long-term care services for the growing aged population, rural hospitals need reimbursement levels that meet the level of care delivered.

Comment

Iowa is implementing reforms to the long-term care system that provide resources and promising practices to assist in improving options for individuals. Also, allowing individuals to receive services how and where they desire. The Iowa Legislature passed legislation in 2008 establishing several health policy councils and committees to look at implementing health care reforms in the state and improving efficiency and quality in Iowa's health and long-term care systems. Iowa's Money Follows the Person project targets individuals living in intermediate care facilities for the mentally retarded and providing supports and services to allow them to live in communities of their choice.

MENTAL/BEHAVIORAL HEATLH

Initial statement - Because mental health and physical health go hand-in-hand, mental health can directly impact personal wellness, job satisfaction, productivity, family dynamics and overall health of the community. Comprehensive mental health services include inpatient treatments, counseling and psychotherapy, social services, peer and professionally facilitated supports, as well as medication as appropriate. Rural residents are less likely to receive needed mental health and behavioral therapies than those residing in urban areas.

Rural Mental Health

Mental health services are in short supply in rural America. Mental health service needs in rural areas and the barriers to improving the availability, accessibility, and acceptability of rural mental health services are well documented. Federal programs in rural mental health care are in the federal Departments of Health and Human Services, Agriculture, and Education. The role of HRSA Office of Rural Health Policy is information analysis for improving rural mental health care policy.

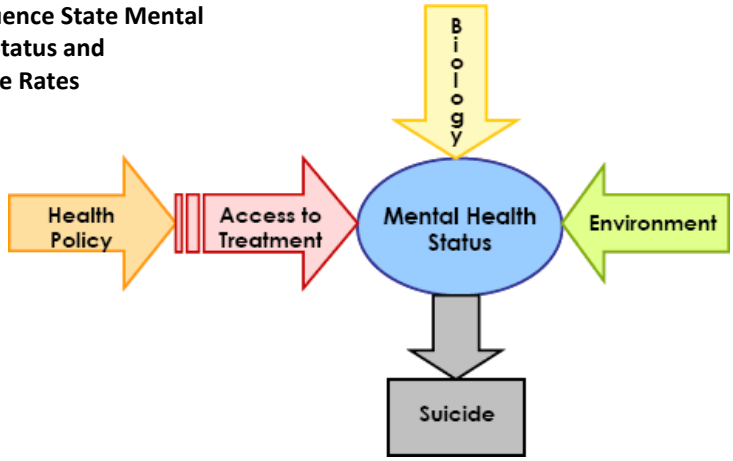
Even after the severe impact of the 1980's farm crisis, with a suicide rate among male farmers and ranchers that was nearly four times as high as the national average, a rash of homicides (e.g., shootings of farm lenders), and social protests (e.g., rallies at farm auctions), today, mental health care in rural America still lags behind its urban counterparts. Overall, there is still very little difference between the prevalence of clinically defined mental health problems in urban areas versus rural [71]. But the availability of treatment services in rural areas of the U.S. is significantly less.

The U.S. Agency for Healthcare Research and Quality 2010 report indicates in 2007 that of 95 million visits to emergency room by adults, 12 million or 12.5 percent had to do with mental health and substance abuse disorders. Rural hospitals do not always have ER staff with mental health expertise. Of the 12 million visits that were billed, 30 percent went to Medicare, 26 percent went to private insurers, 20 percent went to Medicaid, and 21percent of patients were uninsured . Hospitals expect the number of ER visits for mental health care to increase as health reform expands insurance coverage. Additionally, if the patient requires transport, rural hospitals can spend several hours arranging for transport and often need to coordinate with county law enforcement.

National Report

Ranking of America's Mental Health: An Analysis of Depression across the States, examined depression as a chronic illness and the principal cause of suicide. The data from the study ranked states for depression and suicide. **Iowa was ranked fourth highest for depression** and 23rd for suicide. The report also concluded: 1) the more generous a state's mental health parity coverage, the greater the number of people in the population that receive mental health services and described 2) the factors that influence state mental health status and suicide rates [72]. (See graphic below.)

Factors That Influence State Mental Health Status and Suicide Rates



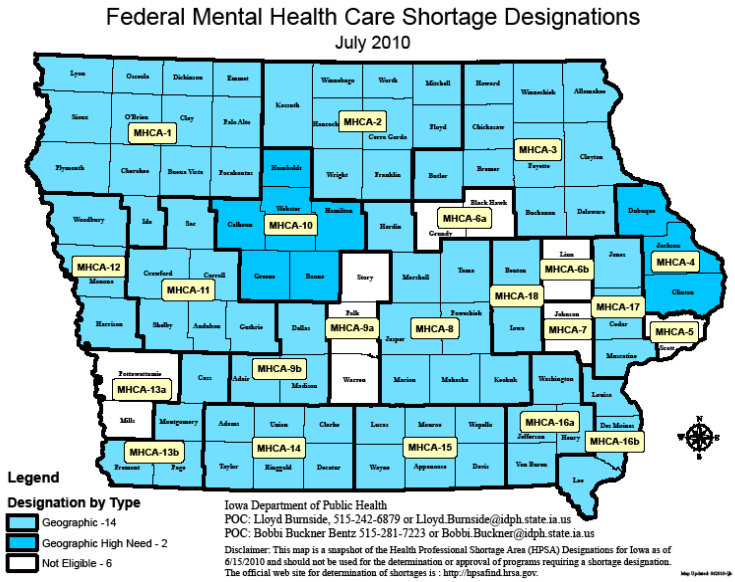
Source: Ranking of America's Mental Health: An Analysis of Depression Across the States. (2007)

More Recently - In January 2011, Michael Rosmann Ph.D, Executive Director of Agriwellness Inc. in Harlan, IA, distributed information including statements from the *Daily Iowan* newspaper. The article highlighted the problem of suicide in rural counties: "*Even though over half of Iowa's population lives in urban areas, from 2000-2008, 1,568 people committed suicide* in rural *counties of Iowa, versus 1,382 in the state's urban counties. Negative stigma about seeking professional mental healthcare contributes to the problem."* The executive director of the Community Mental Health Center in Iowa City, Stephen Trefz, was quoted in the June 11, 2010 issue of the *Daily Iowan*: *"You don't see many farmers at the (grain) elevator saying, 'I'm going to see my therapist."* The article was a reflection of the need for more behavioral therapy and mental health care in rural areas. However, because of a shortage in health care professionals, behavioral health treatment and counseling in rural communities, it can often a primary care provider that initiates the diagnosis, makes referrals, and does follow-up care to help rural residents with their psychological needs.

One of Dr. Rosmann's recent studies revealed—"*Historically, the behavioral health of the agricultural population has been affected by their economic well being. Sufficient research now exists to recognize the agricultural population as a health disparity group. A pattern of environmental, cultural, and economic factors unique to the agricultural community suggests a higher risk for health disparity among persons engaged in agriculture. Gradually over the past few years a new field, agricultural behavioral health, has emerged."* Development of behavioral healthcare services specific to the agricultural population generally has accompanied periods of economic difficulty for farmers, ranchers, and farm laborers, such as the Great Depression of the 1930s and the Farm Crisis of the 1980s. One response to the 1980s farm crisis was establishment of telephone hotlines to provide confidential and free supportive counseling for farm and rural callers (e.g., Iowa Concern Hotline, Kansas Rural Family Helpline, Nebraska Rural Response Hotline, and Wisconsin Farm Center). The hotlines employ trained telephone responders who can refer callers for needed mediation and professional mental health services [73].

In Iowa, the Department of Human Services Division (DHS) of Mental Health and Disability Services (MHDS) works to ensure that quality mental health and disability services are available to Iowans. However, Iowa lags in adequately prepared service providers. According to the HRSA National Center for Health Workforce Analysis, Iowa ranks 47th among states in psychiatrists per capita, 46th among states in psychologists per capita, and 28th among states in social workers per capita. According to 2006 Iowa's Mental Health Workforce Report, nationally, Iowa exhibits a high percentage of mental health professionals, ages 55 or over, which predicts an increase in mental health workforce shortage [74].

Eighty-nine of Iowa's 99 counties are designated by the federal government as Mental Health Care Shortage areas. The federal government officially recognizes there are not enough mental health professionals to provide a sufficient level of care in these counties. This designation qualifies the facilities in the geographic area to apply for federal funding for provider loan repayment. It also allows facilities in these areas to hire J-1 visa physicians through the State Conrad 30 program. Iowa also has limited loan repayment funds available through the Iowa Department of Public Health PRIMECARE program and through the State Loan Repayment Program (SLRP). The 10 counties in Iowa that do not meet the designation of a shortage are all counties that are also metropolitan statistical areas. There is a notable rural health disparity in the area of mental health access.



Broadlawns Medical Center (BMC) delivers comprehensive mental health services including community-based services, outpatient services, and inpatient care. The overall program includes child and adolescent services. Mental health assessment allows for drug addiction services, if needed. BMC admits patients from Polk County and several rural counties.

In addition to community hospitals, there are four state mental health institutions that serve Iowa through the state Department of Human Services, all built during the late 1800s — Mount Pleasant, Independence, Clarinda, and Cherokee. Each institution has distinct service areas and has developed a specific specialty of care. Additionally, the Oakdale Hospital serves as a medical and classification center and Mount Pleasant Hospital serves clients with mental health and alcohol/chemical dependency. The Veterans Administration (VA) maintains three mental health hospitals in Des Moines, Knoxville, and Iowa City.

Iowa receives about $3.7 million per year from the federal Community Mental Health Block Grant that is passed through to counties. The funding is for adults and children who are seriously mentally ill and not for inpatient care. It is intended for community agencies activities that support the needs of the mentally ill. As of November 2010, Iowa has 95 Community Mental Health Centers. The Iowa Consortium for Mental Health partners with DHS and the University of Iowa and serves as a liaison and resource agency to address the priority needs of the public mental health system.

The Iowa Department of Public Health (IDPH) currently administers two programs which enhance and support mental health services in Iowa.

The Mental Health Professional Shortage Area Program was initially established through legislation in 2007. It directs IDPH to administer funds for two mental health capacity-building projects. The first project is a one-year postdoctoral internship program for psychologists and was established by the Iowa Psychological Association. The second program, entitled the Mental Health Professional Shortage Area Program, provides funding to Community Mental Health Centers and hospitals with psychiatric in-patient units to recruit and retain psychiatrists. This program focuses on the recruitment and retention of psychiatric medical directors in facilities that are located in federally qualified mental health professional shortage areas.

The Post Graduate Psychiatric Training Residency Program is also administered by IDPH state funds. The program has two state contracts, one at Cherokee Mental Health Institute and the second at the University of Iowa, Department of Psychiatry. These programs train advanced practitioners such as nurse practitioners and physician assistants in a one-year residency/fellowship in mental health.

Summary

Mental health care is currently in crisis mode in rural America and in Iowa. Major contributing factors are insufficiency of a qualified health workforce and reimbursement. There also is not ample funding specific to those in rural areas who are not seriously mentally ill and who rather need counseling and outpatient interventions for acute episodes or life factors that may lead to serious health and family situations. There are too few psychiatric beds in hospitals and declining outpatient mental health services in rural communities. Rather those seeking acute mental health interventions are presenting in emergency departments. Primary care providers in clinics deliver mental health services because of the shortage of “expert” mental health practitioners in their communities, but cannot always get reimbursement. In spite of the challenges, there are some promising practices and innovative programs in rural Iowa.

Comment

According to federal law, mental health services require parity. Comprehensive mental health services need to be an integral part of basic primary health care. However, studies and real life experiences indicate that rural residents, especially farmers, may be hesitant to enroll in mental health services designed for the chronic mentally ill. Rural Iowans can benefit from federal and Iowa programs that build on workforce training experiences in rural areas, and support programs delivering mental health interventions. Upcoming health reform changes to insurance availability will help noninsured persons seeking mental health services; however it does not ensure access. Additionally, programs and funding that are designed to avoid a mental health crisis events can help hospital emergency departments dealing with the increase in mental health visits and the uncompensated cost issues.

Pharmacy

Pharmacy services are imperative in ensuring the optimal management of a patient's medical conditions. The rural health population is particularly prone to being older (with limited mobility), having more long-term diseases, and being more financially restricted. Pharmacists have an important role in assisting patients in rural populations on the appropriate use of their medications; in providing medication dose packing and other such compliance to medication regimen aids; in helping to select less costly, equally effective medications; and in answering patient questions related to medications [75]. The growth of internet pharmacies and mail-order options may at first appear as a solution to access-related concerns for rural patients. However, an important consideration is whether the rural community has appropriate technology or telecommunication tools to access such services. Another concern when utilizing internet pharmacies is the lack of medication review and inconsistent review of medication interactions, specifically when adding a new medication to a patient's drug regimen. Furthermore, access to medications does not necessarily ensure appropriate understanding of the importance to use the medications, directions on time-of-day administration, and other important considerations regular pharmacist consultations would address.

Pharmacists are sometimes the only health care professionals available in a rural area. Generally, pharmacy hours are more extended than mobile rural clinic hours, and this enables patients to have questions about their disease states addressed by the pharmacist. Also, many rural pharmacists are on call for any type of emergency whether to act as a resource for information or to dispense medications. Thus, this is a critical point-of-access for patients in addressing questions related to poisonings, medication usage, and, in certain circumstances, to refer patients to the emergency room for issues that require immediate or extensive care. The National Advisory Committee on Rural Health and Human Services delivered a report to the Secretary of Health and Human Services (HHS) in 2006 highlighting access to pharmaceuticals and pharmacy services in rural areas. The committee identified this area as a major concern because of the 16% increase in spending for prescription drugs seen across the nation; thus, making it important to ensure access to needed medications would not restrict adherence to medication regimens [76].

The committee report also identified a concern in the rural population related to enrollment in optimal Medicare Part D prescription plans. Through home visits and through public comments, the committee found that rural seniors may not have the most optimal plan based on their prescriptions. Seniors expressed confusion about the various Part D plans available and a lack of understanding on different formularies and awareness of the designated enrollment period. Seniors would benefit from pharmacist consultations to assist patients in accessing Medicare resources to help choose an appropriate prescription benefit plan. The report further directs

the HHS secretary to study prescription plans that may force participants to utilize mail-order pharmacy services and restrict access to a pharmacist [77].

Online Pharmacies - The increasing availability of internet pharmacies or electronic pharmacies may also be a concern for the rural population. Though there is wide variability in access to the internet in rural settings, it is still a concern to consider the utilization of internet pharmacies in this population. Patients that utilize uncertified internet pharmacies may be purchasing drugs from sites that have not gone through quality screenings by the Food and Drug Administration (FDA). These unapproved sites may offer lower-cost prescription medications, but they may not have the same potency as prescribed by the primary care provider [78]. Internet pharmacies may be licensed by the National Association of Boards of Pharmacy (NABP). However the NABP lack the authority to shut down unlicensed sites in other countries, which is the primary supplier of online prescription drugs for patients. Some prescriptions purchased may also not be approved by the FDA for use in the United States, may be counterfeit or illegal. Some internet pharmacies may also lack an appropriate method to verify that prescribers have a current license to practice versus a community pharmacy that is more familiar with the agent of the prescriber, and are better suited to evaluate an appropriate patient-prescriber relationship related to a prescription drug. Therefore, the rural health population may be prone to fall victim to online pharmacies because of lack of local community pharmacies, and an overall lack of understanding of safety concerns associated with online pharmacies [79].

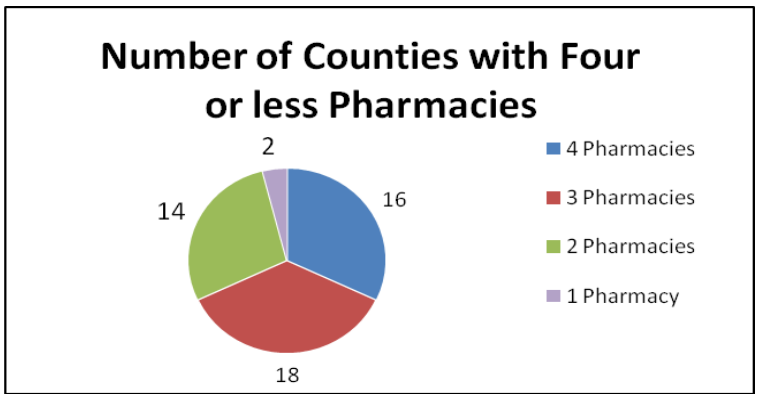


Figure 1. Iowa Counties with four or fewer pharmacies: Source IA Pharmacy Association

Pharmacy in Iowa

In Iowa, 50.5 percent of Iowa's 99 counties contain 4 or less pharmacies per county. Figure 1 above shows a breakdown of the number of counties with 4, 3, 2, or 1 pharmacies located in the designated Iowa county. These numbers are adapted from membership data for the Iowa

Pharmacy Association and include both hospital pharmacies as well as community pharmacies. Thus, this may overestimate the actual patient service pharmacies that provide chronic disease medications and other services for patients. Of those rural pharmacies, over 90 percent are owned independently versus chain membership prevalent in more urban areas [80].

Independent pharmacies face many challenges, including an inability to negotiate lower costs, inability to purchase in small quantities and decreased delivery schedules from wholesalers due to the smaller volume of prescriptions generally seen in rural, independent pharmacy settings. Staffing these community pharmacies is also a major concern, with only approximately 12% of pharmacists practicing in a rural setting. It is very difficult to replace pharmacists who retire or to attract new graduates to these settings. Often, with loan amounts averaging greater than $100,000, there are greater incentives to work in more urban areas that can provide higher salaries versus the low volume rural settings. Thus, independent pharmacies are constantly working to retain an adequate number of staff and to offer innovative services to compete with mail-order pharmacies and other concerns that endanger their existence [81].

State Legislated Pharmacy Program

Iowa Prescription Drug Donation Repository Program

Lack of pharmacies in rural Iowa is well documented. Access to medications can be a horrendous challenge for the underserved, uninsured and underinsured. Iowa Administrative Rule Chapter 109 defines the Prescription Drug Donation Repository Program. The IDPH is the state program administrator and partners in program activities. **In Iowa**, the Iowa Prescription Drug Corporation (IPDC) manages several programs designed to increase access to affordable medications for the safety net population. IPDC programs include:

1. Drug Donation Repository Program which allows medical facilities and pharmacies to re-dispense pharmaceuticals and supplies that would otherwise be destroyed
2. Medication Discount Card for qualified clients
3. Iowa Medication Voucher Program with limited selection of generic medications focused on five disease states: diabetes, high blood pressure, elevated cholesterol, depression, and pregnancy/pre- and post-natal care

Drug Donation Repository Program– Rural Impact Case Study

The Iowa Drug Donation Repository Program received 48 Zyvox tablets from an individual donation. Zyvox is used to treat Methicillin-resistance Staphylococcus Aureus (MRSA), a bacterial infection that is highly resistant to some antibiotics. At the time of dispensing, the retail cost of the Zyvox was $78.20 per tablet. The Iowa Department of Public Health was

contacted regarding the Zyvox donation and information was posted through the infectious control network. The Critical Access Hospital in Winterset, Iowa requested 24 of the Zyvox tablets. The requested Zyvox tablets, valued at $1,876, were shipped to the rural hospital and dispensed to a young man who was uninsured and currently hospitalized. The patient had been hospitalized for three days and was receiving IV antibiotic treatment. Without the donated Zyvox, the patient would have remained in the hospital for an additional 10 days to continue IV antibiotic treatment. The young man received the oral antibiotic and was able to return home to treat his infection without further hospitalization. As a result of the Zyvox donation, over $41,000 in medication and hospitalization costs were saved. The additional 10-day IV antibiotic treatment was estimated at $5,956. The cost of 10 additional days in a hospital (excluding physician fees) was estimated at $35,980 according to the Iowa Hospital Association.

Summary

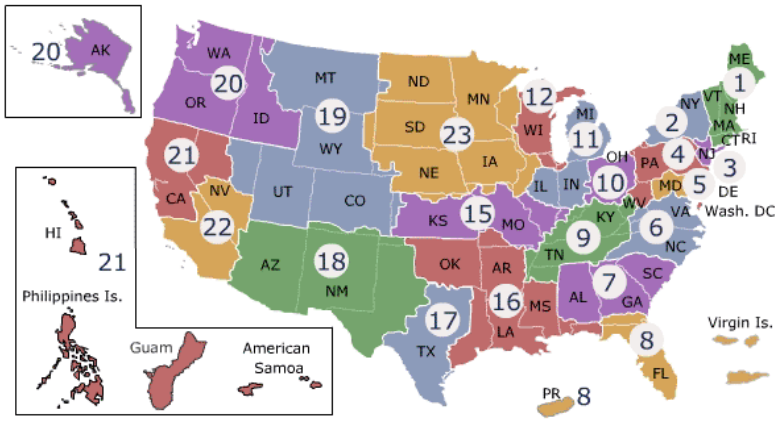
Pharmacy is an integral part of the rural health care community. Providing access to medication through the availability of a community pharmacy will enable patients to increase medication adherence and improve understanding of a disease state or the appropriate way to use a medication. More than a third of Iowa's counties have three or less pharmacies. These limitations can impact management of chronic disease states like diabetes, hypertension, and heart failure, which are a significant financial burden to the patient and health care system. Ideally rural Iowans will have access to appropriate medication managed and delivered by a pharmacist in conjunction with regular medical care [82].

Comment

Pharmacy services must be available in rural communities and pharmacists should be invited as part of the health care team in delivering care for patients. An expanded pharmaceutical care program available with appropriate reimbursement for medication services can increase access to important pharmacist provided services and improve the overall health of the rural population. Rural hospitals and clinics need drug procurement systems that allow safe, low cost, and efficient delivery of medications. Underserved Iowans are benefiting from the current Prescription Drug Donation Repository Program.

VETERANS HEALTH ADMINISTRATION

Veterans Health Administration (VHA) is within the U.S. Department of Veterans Affairs (VA). The VHA is known for commitment to innovative quality, safety programs, and its transparency in being accountable for the results achieved by those programs. A VHA top priority is---*the special need of veterans who live in rural areas and have to travel further to receive health care.* Nationwide, there are 171 medical centers; more than 350 outpatient, community, and outreach clinics; 126 nursing home care and 35 domiciliary units. The VHA operates with 23 Veterans Integrated Service Networks (VISN). Iowa is part of VISN 23 which along with VISN 9 and 15 has the highest percentage of rural veteran patients (59 percent) in the nation. (See map below.) VISN 23 also has a full-time rural health consultant who leads rural health activities across the network.



The VHA recently released its second facility-level report on quality and safety. *The 2010 VHA Facility Quality and Safety Report* used clinical performance measures identical to those used by the Health Resources Services Administration (HRSA) to rate and compare hospitals that give care to Medicare beneficiaries.

One section of the report examined urban vs. rural health care and focused on quality of care in the outpatient setting. There were no clinically significant differences for any of the outpatient quality of care composites between patients residing in rural and urban areas. An additional analysis revealed that rural patients reported similar levels of patient satisfaction as urban patients [83]. Overall, for veterans who receive VHA medical services, there were no differences in quality of care or patient satisfaction rates between urban and rural patients.

Rural Verses Urban Health Care Costs

In 2009, researchers Alan N. West and William B. Weeks released a report: *Health care expenditures for urban and rural veterans in Veterans Health Administration care.* The study assessed whether urban-rural differences in access to medical care are similar for veterans who use the VA compared with veterans who do not use the VA, or nonveterans, and whether these access differences may vary with age. The study analyzed expenditures data from nine years of the Medical Expenditures Panel Survey (MEPS; http://www.meps.ahrq.gov), a continuous national health survey of the general US population.

The following are findings from the expenditure analysis: Rural residents, particularly men younger than 65 years, were at a disadvantage socio-economically, with respect to insurance coverage. Rural VA users younger than 65 years reported poor health as often as older VA users, and more often than other working-age men, including urban VA users. Their annual expenditures averaged $1,100 less than urban VA users, who were more likely to have private insurance. Rural VA users were least likely to have insurance. Yet for those without insurance, their self-payments for care were as high as urban VA users, and substantially higher than other men younger than 65 years [84].

The VA in Iowa

In Iowa, the VHA maintains two medical center facilities systems: the VA Central Iowa Health Care Systems (CIHCS) in Des Moines and the Iowa City VA Medical Center. The medical centers offer a full array of acute and specialized medical and surgical services, residential outpatient treatment programs in substance abuse and post-traumatic stress, a full range of mental health and long-term care services, sub-acute and restorative rehabilitation services and a domiciliary care. Statewide, there are 12 outpatient clinics or Community Based Outpatient Clinics (CBOC). There are extensive pharmacy services including prescriptions by mail. Three vet centers in Cedar Rapids, Des Moines, and Sioux City are staffed with counselors and individuals who can work with veterans and their families.

Two VHA services making a difference to rural veterans are home telehealth and the Medical Foster Care program. Home telehealth promotes care coordination and allows health monitoring from the home. Services increased 80% between 2007 and 2008 [85]. The Des Moines VA Center coordinates the Medical Foster Home program. It allows placement of veterans who can no longer stay at home alone and want to stay in a home environment. Qualified individuals receive training and support as foster care workers. The veteran needing supervised care can then move into the foster home.

In August of 2008, the University for Iowa Veterans Affair Medical Center was one of three sites in the nation awarded a $10 million rural health grant. The university established the VA Midwest Rural Health Resource Center. The grant supports a number of initiatives to enhance health care delivery to rural veterans and closes gaps in quality and access to care that may result from the geographic isolation faced by rural veterans. The establishment of the Rural Health Resource Center represents a partnership between several VA medical centers within the Veterans Integrated Service Network (VISN) 23.

Summary

The VA has been engaged in innovative strategies to increase quality care for veterans. The VA Health Care system recognizes the need for increased services and access for veterans returning from war, and for the growing number of veterans who are part of the baby boomer generation (75 percent of rural veterans are over age 65).

Comment

The VHA reaches out to rural communities, health care delivery systems, universities and rural health leaders to move forward planning that will best serve "*veterans who live in rural areas and have to travel further to receive health care."* When possible, community agencies, rural clinics and hospitals should join and support initiatives that result in increased medical and social services for their local veterans.